

-continued

<213> ORGANISM: Artificial Sequence
 <220> FEATURE:
 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide

<400> SEQUENCE: 564

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 1 5 10 15

Trp Val Leu Ala Val Ile
 20

1. A fusion protein comprising:

- (a) a first component that is an antibody, or a fragment or variant thereof; and
- (b) a second component that is: (i) a cytokine trap, or a fragment or variant thereof; or (ii) an adenosine deaminase (ADA), or a fragment or variant thereof.

2-13. (canceled)

14. The fusion protein of claim **1**, wherein the first component binds to a tumor antigen expressed on the surface of a tumor cell, said tumor antigen selected from CD19, BCMA, CD23, BAFF-R, GPRC5D, CD44, CAIX, CD5, CD30, CD70, CD44v6, CD44v7, CD44v8, CD174, CD28, CD128, CD138, CS1, CLL-1, L1-CAM, FAP, ROR1, CEA, EGP-2, EGP-40, HER2, HER3, Folate-binding Protein, GD2, GD3, IL-13R- α 2, IL-11R α , EphA2, CSPG4, KDR, EDB-F, mesothelin, CD22, EGFR, Folate receptor α , MUC-1, MUC-4, MUC-16, MAGE-A1, h5T4, PSMA, PSCA, GPC3, c-met, TAG-72, EGFR, CD20, EGFRvIII, CD123, and VEGF-R2.

15-20. (canceled)

21. The fusion protein of claim **1**, wherein the first component comprises: (a) a V_L region comprising a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 417-428; and/or (b) a V_H region comprising a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 390-403.

22-29. (canceled)

30. The fusion protein of claim **1**, wherein the first component comprises: (a) a V_L region comprising a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 449-453; and/or (b) a V_H region comprising a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 444-448.

31-34. (canceled)

35. The fusion protein of claim **1**, wherein the first component binds to programmed cell death protein-1 (PD-1).

36-41. (canceled)

42. The fusion protein of claim **35**, wherein the first component comprises: (a) a V_H comprising a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 1-7, 149-164, 333-337, and 384; and/or (b) a V_L comprising a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 8-13, 148, 338-343, and 385.

43-53. (canceled)

54. The fusion protein of claim **35**, wherein the first component is AM-0001, AMP-224, balstilimab, budigalimab, BI 754091, camrelizumab, cemiplimab, cetrelimab, dostarlimab, JTX-4014, MEDI-0680, MGA012, nivolumab, pembrolizumab, pidilizumab, prololimab, sasanlimab, sin-

tilimab, spartalizumab, STI-1110, tislelizumab, toripalimab, or zimberelimab, or a fragment or variant thereof.

55-56. (canceled)

57. The fusion protein of claim **35**, wherein the first component comprises:

- (a) a polypeptide that is at least 90% identical to SEQ ID NO: 15 and a polypeptide that is at least 90% identical to SEQ ID NO: 16 or 143;
- (b) a polypeptide that is at least 80% identical to SEQ ID NO: 296 and a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 144, 145, and 295; or
- (c) a polypeptide that is at least 80% identical to SEQ ID NO: 13 or 15 and a polypeptide that is at least 80% identical to SEQ ID NO: 294 or 295.

58-62. (canceled)

63. The fusion protein of claim **1**, wherein the cytokine trap is a TGF- β cytokine trap comprising: a transforming growth factor beta receptor II (TGF β RII); a TGF β R extracellular domain; a TGF β RII extracellular domain; an anti-TGF- β antibody; a TGF- β inhibitory peptide; a TGF- β antagonistic peptide; or a fragment or variant of any of the foregoing.

66-68. (canceled)

69. The fusion protein of claim **1**, wherein the cytokine trap comprises a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 14, 141, 142, 468-507 and 263-267.

70-74. (canceled)

75. The fusion protein of claim **1**, wherein the cytokine trap is a TGF- β cytokine trap comprising an anti-TGF- β antibody, or an antigen binding fragment or variant thereof, said anti-TGF- β antibody comprising: (a) a V_H comprising a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 166, 168, 169, 171, 173, and 175; and/or (b) a V_L comprising a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 165, 167, 170, 172, 174, 176, and 178.

76-83. (canceled)

84. The fusion protein of claim **1**, wherein the second component is an ADA, or a fragment or variant thereof.

85-86. (canceled)

87. The fusion protein of claim **1**, wherein the ADA comprises a polypeptide that is at least 80% identical to any one of SEQ ID NOs: 273-279 and 284.

88. The fusion protein of claim **1**, wherein the first and second components are connected by a linker comprising: (a) (G4S) $_n$, wherein n is 2, 3, 4, 5, or 6 (SEQ ID NO: 555); (b) (Gly) $_n$, wherein n is 6, 7, or 8 (SEQ ID NO: 33); (c) (EAAAK) $_n$, wherein n is 1, 2, 3, 4, 5, or 6 (SEQ ID NO: 34); (d) A(EAAAK) $_4$ ALEA(EAAAK) $_4$ A (SEQ ID NO: 31); and/or (e) a sequence of any one of SEQ ID NOs: 17-34.